

Appl. No. 09/698,810
Amdt. dated December 14, 2004
Reply to Office Action of July 15, 2004

PATENT

Amendments to the Drawings:

The attached sheets of drawings include changes to Figs. 9-22. These sheets, which include Figs. 9-22 replace the original sheets including Figs. 9-22.

Attachment: Replacement Sheets

REMARKS/ARGUMENTS

Claims 5-39 are pending. Claims 5, 6, 11, 17, 19, 22, 23, 24, 26, 27 and 29 have been amended. New claims 30-39 have been added. No new matter has been added.

The drawings were objected to because the figure labels for Figures 9-22 were informally amended. Replacement Sheets for Figures 9-22 are enclosed to correct this informality.

Claim 17 was rejected under 35 U.S.C. § 112, second paragraph. Claim 17 has been amended.

Claims 5-11, 13, 15-20, and 22-27 were rejected under 35 U.S.C. § 102(b) as being anticipated by Sakai et al. (JP 11-108759). Applicants traverse the rejection. Claim 5 is directed to a flaw inspection method by liquid penetrant testing. The claim recites, "illuminating a surface of a sample to be inspected with polarized light; obtaining an image of the surface illuminated with the polarized light by a color camera; extracting a flaw candidate from the detected image of the surface by processing the image obtained by the color camera; and displaying an image of the extracted flaw candidate, wherein, in the extracting step, said image obtained by said color camera is processed by calibrating said image by using a parameter unique to said color camera which is calculated from data of an image of a color chart for calibration which contains white, pink and red picked up by said color camera."

The claimed embodiment uses a camera calibration color chart 71 having plural colors including at least white, pink, and red for calibrating an image taken by a color camera (see page 9, line 21 to page 10, line 24). Sakai does not disclose the use of a color chart having white, pink, and red for camera calibration. To evaluate a color image quantitatively in a penetrant test, at least three colors, e.g., white, pink, and red, are needed for a camera calibration color chart, as explained in the specification. Sakai does not disclose nor suggest what kind of colors are needed for the camera calibration color chart for penetrant test. Claim 5 is allowable at least for this reason. Other claims are allowable for similar reasons.

In addition, Sakai does not describe the feature relating to accompanying the position information with the detected flaw image, as shown in Figs. 20-22 (see also page 14, line 20 to page 15, last line).

Claims 28 and 29 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai. Applicants traverse the rejection. Claim 28 recites, "wherein, said code for converting the chromaticity of the obtained image is calculated from data of an image of a color chart for calibration which contains white, pink and red picked up by said color camera." Sakai does not disclose or suggest the above features. Claim 28 is allowable. Claim 29 is allowable for similar reasons.

Claim 12 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai as applied to claim 11. Claims 14 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sakai as applied to claims 11 and 19, and further in view of Gillard et al. Applicants traverse the above rejections. Claims 12 and 14 depend from claim 11 and are allowable at least for this reason. Claim 21 depend from claim 19 and is allowable at least for this reason.

Appl. No. 09/698,810
Amdt. dated December 14, 2004
Reply to Office Action of July 15, 2004

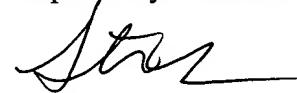
PATENT

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



Steve Y. Cho
Reg. No. 44,612

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400
Fax: 415-576-0300
Attachments
SYC:asb
60364190 v1